



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

DEC 20 2010

REPLY TO THE ATTENTION OF:

E-19J

Mr. Ralph J. Augustin  
State Program Manager  
Regulatory Branch  
U.S. Army Corps of Engineers – St. Paul District  
180 Fifth Street East, Suite 700  
St. Paul, Minnesota 55101-1678

RE: Final Environmental Impact Statement, U.S. Steel Keetac Taconite Mine Expansion Project, near Keewatin in Itasca and St. Louis Counties, Minnesota EIS # 20100448 and Public Notice No. MVP-2008-02481, United States Steel Corporation (U.S. Steel)

We are providing comments on the Final Environmental Impact Statement (FEIS) for the U.S. Steel (USS) Keetac Taconite Mine Expansion Project, consistent with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. The United States Environmental Protection Agency - Region 5 (EPA) received the subject public notice issued on November 19, 2010 as well as the Section 404 Permit Application dated November 2010. In addition, we offer our wetland comments consistent with our responsibilities under the Clean Water Act Section 404 (b)(1) Guidelines.

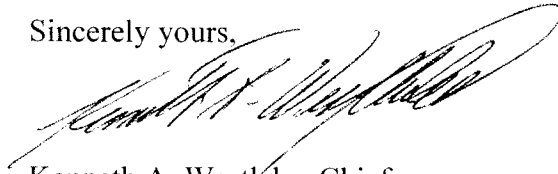
The Keetac project is an expansion of the existing Keetac open pit mine, ore processing plant, and tailings basin near Keewatin in Itasca and St. Louis Counties in Minnesota. The proposed project would increase the taconite pellet production capacity of 3.6 million short tons per year (MSTY) to a total of 9.6 MSTY per year.

On January 27, 2010, the United States Environmental Protection Agency - Region 5 (EPA) provided comments to the U.S. Army Corps of Engineers (Corps) on the Draft Environmental Impact Statement (DEIS) for this project. In our comments on the DEIS, EPA identified significant issues with the wetlands analysis. Specifically, EPA stated that the applicant did not demonstrate compliance with the Clean Water Act Section 404(b)(1) Guidelines because the applicant had not demonstrated that impacts have been avoided and minimized to the maximum extent practicable. EPA rated the DEIS as Environmental Objections – Insufficient Information “EO-2”, based on the impacts to wetlands and the need to avoid and minimize those impacts, as well as concerns over the mitigation plan. We also identified issues regarding water quality, air emissions, and financial assurances.

We have reviewed the FEIS, the Corps' Public Notice, and the Applicant's permit application for this project. Many of the comments that were raised in our DEIS comments were resolved by information included in the FEIS, the Public Notice or the permit application. Specifically, the information in the FEIS regarding financial assurances addresses our comments about that topic. Information included in the FEIS addressed most, but not all of our comments regarding wetlands avoidance, minimization, and compensation, water quality, and air emissions (greenhouse gases and mercury). We are attaching two documents that discuss EPA's remaining concerns. The first attachment is entitled "Wetland Comments on Keetac FEIS and U.S. Army Corps of Engineers Public Notice MVP-2008-02481-JKA." The second attachment contains the rest of EPA's concerns.

Thank you for the opportunity to review and provide comments on the FEIS and public notice. If you have any questions or would like to discuss NEPA concerns, please contact Kenneth Westlake at (312) 886-2910. If you would like to discuss wetlands issues, please contact Peter Swenson at 312-886-0236.

Sincerely yours,



Kenneth A. Westlake, Chief  
NEPA Implementation Section  
Office of Enforcement and Compliance Assurance



Peter Swenson, Chief  
Watersheds and Wetlands Branch  
Water Division

cc: Steve Clark, Corps of Engineers – St. Paul District  
Erik Carlson, MN Department of Natural Resources

Enclosures (2)

## **Attachment 1 – Wetland Comments on Keetac FEIS and U.S. Army Corps of Engineers Public Notice MVP-2008-02481-JKA**

### **Direct Impacts for Proposed Project**

According to the public notice, the applicant is proposing to fill 635 acres of wetlands and 25 acres of open water. According to the FEIS at page 4-89, the “Proposed Project” would result in the filling of 736.33 acres of wetland impacts and 24.98 acres of open water. The discrepancy between the proposed numbers in the public notice and the FEIS should be resolved before the issuance of a Section 404 permit and a Record of Decision (ROD).

### **Indirect Impacts**

According to the public notice, there are “about 450 acres of wetlands adjacent to mining features that could be indirectly affected through lateral drainage/or inundation.” This number is inconsistent with the numbers included in the FEIS, which refer to 174.6 acres of potential indirect impacts that will be monitored if the Proposed East Stockpile configuration is permitted and 275 acres of potential indirect impacts that would be monitored if the East Stockpile Alternative (a second alternative) is permitted. The discrepancy between the proposed numbers in the public notice and the FEIS should be resolved before the issuance of a Section 404 permit and a Record of Decision (ROD).

### **Potential Indirect Impacts and Monitoring**

In general, it was difficult to confirm the amount of wetlands that would be indirectly impacted and the number of wetlands that would be monitored and whether these two sets of wetlands were overlapping or if they were exclusive of one another.

Page 4-90 of the FEIS states that the Project Proposer was directed to address the potential for future wetland impacts other than the direct impacts to wetlands. As a result, an “Indirect Wetland Impact Study” was conducted. That study concluded, “potential indirect wetland impacts exist from alterations to groundwater and surface water surrounding the Proposed Project boundaries. However, the study was inconclusive to quantify the impacts, and therefore wetland monitoring would be conducted as part of the Proposed Project.” This section continues to state that wetlands that have been monitored since 2008 would continue to be monitored and this ongoing monitoring would be included as a requirement of the Section 404 permit.

Page 4-83 of the FEIS states, “Based on the assumption that all wetlands in each impact area would be completely impacted, the Proposed Project results in an estimated 761.31 acres of wetland impacts.” Approximately “174.6 acres of wetland would be monitored as required by the Clean Water Act (CWA) Section 401 Certification, CWA Section 404 permit, and (Minnesota Wetland Conservation Act) WCA approval” to determine if future impacts are caused by the proposed project. Table 4.6.16, “Proposed Project Monitored Wetlands” indicates the Wetland ID associated with each of 7

wetlands that have been monitored since 2008, the corresponding Figure is identified as 4.6.9. The Figure appears to show 12 monitoring wells in wetland areas. The wetland ID's in the table are not included in the Figure. We recommend that this information be more clearly depicted in the permit application. Further, any discrepancy between the proposed numbers in the Public Notice and the FEIS should be resolved before the issuance of a Section 404 permit and a Record of Decision (ROD).

Figure 4.6.10 titled "East Stockpile Alternative Wetland Impacts and Monitored Wetlands" shows the same monitoring well locations in that area. The FEIS is not clear whether additional monitoring points would be added to adjust to the East Stockpile Alternative. The Project Proposer should consider installing additional monitoring wells in the following locations: 1) wetland 2008\_31 north of the edge of the stockpile, 2) the southern portion of wetland 2008\_52 (Shrub-Carr) north of 2008\_40 near the northeastern edge of the stockpile, 3) 2008\_13 (Alder Thicket) on the southern edge of the stockpile, and 4) 2008\_33 (Shrub-Carr) near the southern edge of the stockpile. These are all moderate to high quality wetland systems that should be monitored near the edge of the "East Stockpile Alternative" footprint to gauge changes in hydrology.

Page 4-96 of the FEIS states, "Any Section 401, Section 404 or WCA permits or approvals that may be issued to the Project Proposer would require ongoing wetland monitoring for potential indirect impacts." Multiple CWA and WCA permitting and approval processes will be occurring in five year mining periods. If impacts are identified, additional wells might be needed as well as revisions to the monitoring plan. It appears that hydrology alone will be monitored to detect indirect impacts. The Project Proposer has not proposed to monitor changes in wetland vegetation; however this would be especially valuable in moderate to high quality systems. In addition, it is not clear whether any thresholds have been identified for the hydrological changes. To clarify, a conceptual discussion regarding what changes and what level of impact would need to occur to hydrology and/or vegetation before there is a determination to require compensatory mitigation should be included in the Section 404 permit. EPA recommends that the Corps include a special condition in the Section 404 permit that requires monitoring of vegetation in moderate to high quality wetland systems in addition to monitoring hydrology.

## **Mitigation**

EPA requests to review any subsequent revisions of the Project Proposer's compensatory mitigation plan. Specifically, EPA requests a copy of the forthcoming document that will include the micro-scale analysis of each wetland to be created in the outer tailings basin. EPA believes that this should be submitted to and reviewed by the Corps and EPA before a Section 404 permit is issued. The Corps cannot make an informed decision about the adequacy of the Tailings Basin component of the compensatory mitigation plan until that document is evaluated.

## **Attachment 2 – Remaining Comments on Keetac FEIS**

### **Water Quality**

#### Need for Background Monitoring

The FEIS has a statement indicating the Minnesota Department of Natural Resources (MDNR) has agreed to consider amending an existing water appropriations permit for Keetac to include monitoring of fish and macroinvertebrate communities. EPA would prefer that a more definitive commitment be made to conduct biological monitoring in Hay Creek, Hay Lake, Swan Lake and other waterbodies potentially affected by the proposed project as one of the best measures of the health of aquatic communities and detection of adverse impacts. We recommend that MDNR include a commitment to background monitoring of these communities before the project commences and then as operations proceed.

#### Sulfate and Protection of Wild Rice

EPA notes the acknowledgement in the FEIS that the sulfate criterion of 10 mg/L applies to waters used for the production of wild rice (directly downstream of the Keetac site) and the recognition of the great significance of this resource to local Indian Tribes. Also, mitigation steps are being taken and are included in existing NPDES permits, although the projected compliance with the standard is nine or more years in the future. In the short-term, the expected cumulative effects as described in FEIS Section 5.3.2.2.1 (...“an increase in the in-lake mean concentration from 28.8 mg/L to 38.8 mg/L”) are of concern regarding the future longer-term viability of wild rice in Swan Lake and other water bodies. While admittedly the exact effect of this increase in sulfate is unknown, the potential exists for some adverse effect, which supports the need for concluding the mitigation steps as quickly as possible. Also, a more scientifically-based analysis of this impact may be available in the next few years as the issue of sulfate and wild rice is discussed and studies are conducted by Minnesota agencies, EPA and several Tribes. In this regard, our more detailed comments that were previously made on this topic are still appropriate and relevant, but are best handled through these other multi-stakeholder mechanisms.

#### Water Quality /Groundwater

The FEIS makes the following statements regarding portions of the site near or in the Lake Superior basin (Section 4.4.2.1.1): “A small portion of the proposed east stockpile and existing tailings basin exterior dam is located in the Lake Superior Watershed.” The next paragraph states, “The tailings basin has discharge from seeps, which has altered the water flow to watersheds and water bodies around the site.” The

ROD should clarify that any potential for impacts within the Lake Superior basin have been studied and that none are anticipated.

One related concern is any groundwater impacts from the eastern edge of the Tailings Basin, which essentially abuts the relatively low elevation divide between the Lake Superior basin and Mississippi River basin. Under normal or theoretical conditions, water (both surface water and groundwater) flow would be away from the divide to their respective basins. The proposed project will at least add vertically if not horizontally to the Tailings Basin. The FEIS states (Section 3.3.4.2.4 Tailings Basin, second paragraph), “Additionally, some minor water loss would occur from tailings basin seepage. Minor seepage is anticipated to discharge to groundwater through the bottom of the tailings basin, resulting in groundwater mounding under the basin. This water would flow radially from the tailings basin perimeter, ultimately flowing in the general direction of surface groundwater in the area.”

The expected increased hydrologic pressure has the potential to overcome natural conditions resulting in groundwater migration into the Lake Superior basin. Groundwater basin boundaries at times do not align directly with watershed boundaries, especially in more karst-like aquifers, and can be overcome due to situations as stated above. Determining groundwater flow in this area would be a simple matter and would both alleviate concerns and more fully support the conclusion that all potential impacts from the proposed project would occur within the Mississippi River basin. Potential impacts on the east edge of the project area are an important consideration because water quality within the Lake Superior basin is protected through the Great Lakes Initiative and Minnesota’s rules at Minn. R. ch. 7052. We believe it is important to clarify that the more stringent criteria often associated with the Lake Superior basin are not applicable to the project, if that is indeed the case.

Although anticipated impacts on residential wells in the area were considered during the scoping for the Keetac expansion and determined not to be a significant issue that needed to be included in the EIS process, EPA considers this a shortcoming of the FEIS analysis and recommends that this area be further investigated. The reason for this concern is that little ground water quality data exist or have been presented in the FEIS. Contamination by any number of chemicals can pose a direct impact on human health given the location of many residential groundwater wells which are scattered throughout the site and some in extremely close proximity of the tailings basin, mine pits and other areas that could be impacted. We recommend that the responsible agencies re-evaluate the status of the residential wells in light of this concern.

## **Mercury**

The FEIS for this project refers a great deal to Minnesota’s Mercury Implementation Plan. Although it is true that EPA approved Minnesota’s Statewide Mercury Total Maximum Daily Load (TMDL) Pollutant Reduction Plan, the State of Minnesota’s Mercury Implementation Plan was not reviewed or approved by EPA. Therefore, the manner in which Minnesota Pollution Control Agency (MPCA) accounted

for adverse short-term effects in their Mercury Implementation Plan was not specifically reviewed or approved by EPA.

EPA views the strategies presented in the implementation plan as guidance developed by the state to help direct implementation efforts. The strategy presented in the implementation plan does not supercede the requirement that permits must be written to attain water quality standards. Most of the discussion in the report relates to air emissions; however, the wasteload allocations in the TMDL were established based upon assumptions that air emission reductions would occur. These assumptions made in development of the mercury TMDL should be considered when developing NPDES permits for discharges to or affecting impaired waters.

The FEIS states that mercury-impaired waters won't be further impaired. During the permit process, there will need to be a demonstration made that the project will not cause or contribute to an existing impairment, for mercury impaired waters. EPA retains its regulatory authority to review and, if appropriate, object to permits that provide for increases in mercury loading to impaired waters.

### **Air Permitting**

The EPA is currently working with MPCA on the draft permit for the Keetac expansion and has discussed Greenhouse Gases (GHGs) and Mercury Controls. The ROD for this project should mention that a Best Available Control Technology (BACT) analysis is being done for GHGs as well as the Criteria Pollutants. Our discussions have indicated that BACT for GHG will discuss available technologies, GHG mitigation, and energy efficiency, which were all considered at the facility for this project.

EPA is discussing mercury controls with MPCA. We understand that Activated Carbon Injection (ACI) is being considered although permit decisions regarding required testing and monitoring parameters are still pending. We anticipate discussing with MPCA contingencies to address the possibility that the facility might not achieve desired/estimated mercury reductions from the implementation of ACI.